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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,665	06/18/2001	Seiki Gotou	401256	7187

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WASHINGTON, DC 20005-3960

EXAMINER

CHOE, HENRY

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 03/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/881,665

Applicant(s)

Gotou et al.

Examiner

Henry Choe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 20, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above, claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO 892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3 20) ☐ Other: _____

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DETAILED ACTION

Response to Election

1. Applicant provisionally elected the species I without traverse. Applicant also designated that the claims 1, 2, 5 and 6 read on species I. Examiner agrees with this statement. Therefore, it is concluded that the claim 9 is considered non-elective claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al

(Fig. 1).

Regarding claims 1 and 5, Kato et al (Fig. 1) discloses a transmission line circuit comprising a transistor (FET) which amplifies signals, an input-side impedance matching circuit (INPUT MATCHING CIRCUIT) which is connected to an input side of the transistor (FET), and wherein the input-side impedance matching circuit makes impedance such that there are reflected

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even number order higher harmonics of a fundamental wave of a high frequency signal (see column 3, lines 16-58).

As described above, Kato et al (Fig. 1) discloses all the limitations in the claims except for that the input-side impedance matching circuit makes impedance substantially short-circuit load with respect to odd number order higher harmonics of a fundamental wave of a high frequency signal or open circuit load with respect to even number order higher harmonics of a fundamental wave of a high frequency signal. Nevertheless, as is well known, a short or open is required for reflections. It would have been obvious to have adjusted the length and width of the transmission lines to specific dimension to achieve the desired load condition (open or short) with respect to desire number of harmonics of a fundamental wave because open or short is the required condition for reflections disclosed.

Regarding claims 3, 4, 7 and 8, Kato et al (Fig. 1) inherently includes a third harmonic reflecting circuit, a second harmonic processing circuit, and a fundamental wave matching circuit and a higher harmonic reflecting circuit.

Regarding claims 2 and 6, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have chosen the specific values of phase angle of reflection, since they are based on the routine experimentation to obtain the optimum operating parameters.

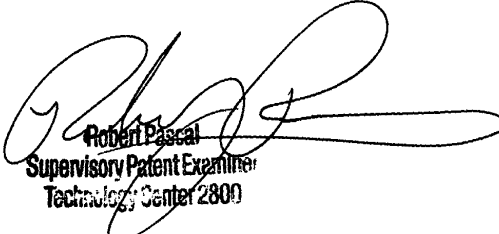
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Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patent numbers (5,886,595; 5,146,178) are the amplifiers with the input matching circuits.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Choe whose telephone number is (703) 305-0576.


Robert Pascal
Supervisory Patent Examiner
Technology Center 2800

H C #489